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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/590,126

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Marcus Meichsner

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EXAMINER

WALTERS JR, ROBERT S

ART UNIT

PAPER NUMBER

1792

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/590,126	Applicant(s) MEICHSNER ET AL.	
	Examiner ROBERT S. WALTERS JR	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 10-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 10-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Status of Application

Claims 1-7 and 10-13 are pending and presented for examination.

Response to Arguments

Applicant's arguments with respect to claims 1-7 and 10-13 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

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claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1, 2 and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sattler (U.S. Pat. No. 4357219).

Regarding claims 1, 2 and 10-13, Sattler teaches a method comprising coating electrical wire using a UV-curable baking enamel (abstract) comprising oxirane-based binders (the acrylated epoxy, see abstract), UV crosslinking catalysts (the UV photosensitizer, see abstract) and further additives (for example the amine terminated acrylated epoxy optional ingredient, see column 2, lines 37-54). Furthermore, note with regards to claims 10 and 11 that component (d) is not required, therefore Sattler meets the limitations of these claims. Sattler further teaches winding the wire to form a coil (column 5, lines 20-22) and curing the enamel by means of UV radiation after coating the wire (column 5, lines 10-19).

Sattler fails to explicitly teach the weight % of each of the components. However, it would have been obvious to one of ordinary skill in the art at the time of the invention that the percentage of each component would affect the quality of a coating prepared from the composition, such as hardness, curing speed, as well as the ease of coating the composition. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to choose the instantly claimed ranges through process optimization, since it has been

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held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. See *In re Boesch*, 205 USPQ 215 (CCPA 1980).

2. Claims 1-7, 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Westervelt et al. (U.S. Pat. No. 4554730) in view of Hatton et al. (WO00/77066).

I. Regarding claims 1-5, 12 and 13, Westervelt teaches a method comprising coating electrical wire (abstract) with a UV-curable enamel, curing via UV irradiation after coating, and winding the wire to form a coil (column 2, lines 31-54 and Figure 3).

Westervelt fails to teach the specifics of the UV-curable enamel. However, Hatton teaches the use of a UV-curable enamel containing an oxirane-based binder and a cationic photopolymerization crosslinking catalyst (see Example 15, page 17), cyracure uvi 6990 (which is a mixed arylsulfonium hexafluorophosphate salt of the form of claim 5). Hatton further teaches the use of reactive diluents such as low molecular weight epoxides (page 8, lines 38-40) in the composition. Hatton further teaches that the oxirane binder can be prepared from a cycloaliphatic oxirane as claimed (see formula at the bottom of page 2) and polyethylene glycol (page 5, lines 19-22). Finally, Hatton teaches that further additives may be added as needed (page 9, lines 2-5). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Westervelt's process by using Hatton's UV-curable enamel. One would have been motivated to make this modification as one could have substituted Hatton's UV-curable composition for the generic UV-curable composition disclosed by

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Westervelt. Furthermore, one could have made this substitution with a reasonable expectation of success (given that Hatton teaches utilizing the composition as insulation compounds for the electronic industry and as coatings, see Hatton at page 13, lines 19-22), and the predictable result of providing a wire coil having an insulating coating.

Westervelt in view of Hatton further fail to explicitly teach the weight % of each of the components. However, it would have been obvious to one of ordinary skill in the art at the time of the invention that the percentage of each component would affect the quality of a coating prepared from the composition, such as hardness, curing speed, as well as the ease of coating the composition. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to choose the instantly claimed ranges through process optimization, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. See *In re Boesch*, 205 USPQ 215 (CCPA 1980).

II. Regarding claims 6 and 7, Westervelt in view of Hatton teach all the limitations of claim 1, but fails to explicitly teach preparing component (a) using methyl-3,4-epoxycyclohexanecarboxylate. However, Hatton teaches the use of polyoxiranes having methyl-3,4-cyclohexanecarboxylate in the structure (see formula at the bottom of page 2) and reacting this with polyethylene glycol (see above) to produce the oxirane binder. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention that this particular monoepoxide could simply be substituted for the diepoxide as taught by Hatton with a reasonable expectation of success (as it would be expected to react with the polyethylene glycol

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identically to produce an oxirane-based binder), and the predictable result of providing an oxirane-based binder for a UV-curable coating composition.

3. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Westervelt in view of Hatton as applied to claim 1, and further in view of Yamamura et al. (U.S. Pat. No. 6127085).

Regarding claims 10 and 11, Westervelt in view of Hatton teach all the limitations of claim 1, but fails to teach the use of polyester polyols having the claimed molecular weights as chain transfer agents. However, Yamamura teaches a similar photo-curable epoxy resin composition (abstract), which incorporates polyester polyols (column 9, lines 7-9) having a molecular weight of 160-1000 (column 9, lines 31-32). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Westervelt in view of Hatton by including the polyester polyols, as disclosed by Yamamura. One would have been motivated to make this modification as Yamamura teaches that the incorporation of these compounds into curable epoxy resin compositions provides shape stability and stability in properties, as well a part of the photo-curability of the resin (column 8, lines 56-61).

Conclusion

Claims 1-7 and 10-13 are pending.

Claims 1-7 and 10-13 are rejected.

No claim is allowed.

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT S. WALTERS JR whose telephone number is (571)270-5351. The examiner can normally be reached on Monday-Friday, 8:00am to 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael Barr/
Supervisory Patent Examiner, Art Unit
1792

/ROBERT S. WALTERS JR/
January 28, 2010
Examiner, Art Unit 1792